Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of routing a message in a network comprising a plurality of nodes, the method comprising:

transmitting a first message from a source node to a destination node along a plurality of paths, wherein the plurality of paths include a first path, and further wherein the first path includes a first intermediate node and a second intermediate node;

generating a first time stamp and a second time stamp at the first intermediate node, wherein the first time stamp corresponds to receipt of the first message at the first intermediate node and the second time stamp corresponds to transmission of the first message from the first intermediate node to the second intermediate node;

generating a third time stamp and a fourth time stamp at the second intermediate node, wherein the third time stamp corresponds to receipt of the first message at the second intermediate node and the fourth time stamp corresponds to transmission of the first message by the second intermediate node;

calculating a propagation delay between the first intermediate node and the second intermediate node, wherein the propagation delay comprises a difference between the second time stamp and the third time stamp; and

selecting the first path from the plurality of paths for communication between the source node and the destination node based at least in part on the propagation delay.

2. (Previously Presented) The method of claim 1, further comprising:

receiving the first message at the destination node; and

transmitting a second message from the destination node to the source node in response to the first message, wherein the second message is transmitted along the plurality of paths.

3. (Previously Presented) The method of claim 1, further comprising generating a fifth time stamp corresponding to receipt of the first message at a third intermediate node in communication with the second intermediate node.

4. (Previously Presented) The method of claim 3, further comprising calculating a second propagation delay, wherein the second propagation delay comprises a difference between the fourth time stamp and the fifth time stamp.

5. (Previously Presented) The method of claim 4, further comprising calculating an overall propagation delay of the first path based at least in part on a sum of the propagation delay and the second propagation delay, wherein the first path is selected based on the overall propagation delay of the first path.

6. (Canceled)

7. (Previously Presented) The method of claim 5, further comprising calculating a processing delay of the first intermediate node, wherein the processing delay comprises a difference between the first time stamp and the second time stamp, and further wherein the first path is selected based at least in part on the processing delay.

8. (Previously Presented) The method of claim 1, further comprising:

measuring a signal quality of the first message at the first intermediate node; and

selecting the first path for communication between the source node and the destination node based at least in part on the measured signal quality.

9. (Previously Presented) The method of claim 8, further comprising storing the measured signal quality in the first message.

10. (Previously Presented) The method of claim 1, further comprising:

calculating a distance between the first intermediate node and the second intermediate node; and

selecting the first path for communication between the source node and the destination node based at least in part on the calculated distance.

11. (Previously Presented) The method of claim 10, further comprising storing the calculated distance in the first message.

12. (Previously Presented) The method of claim 1, further comprising:

calculating a velocity of the first intermediate node; and

selecting the first path for communication between the source node and the destination node based at least in part on the calculated velocity.

13. (Previously Presented) The method of claim 1, further comprising:

measuring a power attribute of the first intermediate node; and

selecting the first path for communication between the source node and the destination node based at least in part on said measured power attribute.

14. (Previously Presented) The method of claim 1, further comprising:

assessing a link stability of the first path; and

selecting the first path for communication between the source node and the destination node based at least in part on said assessed link stability.

15. (Previously Presented) The method of claim 1, further comprising:

identifying a quality of service of the first message; and

selecting the first path for communication between the source node and the destination node based at least in part on the identified quality of service.

16. (Previously Presented) The method of claim 1, further comprising:

measuring a first position of the first intermediate node at a first time;

measuring a second position of the first intermediate node at a second time;

calculating a velocity of the first intermediate node using the first position and the second position;

storing the calculated velocity in the first message; and

selecting the first path for communication between the source node and the destination node based at least in part on said stored velocity.

17. (Previously Presented) The method of claim 1, further comprising using a routing algorithm to weight a parameter based on a priority value, wherein selecting the path for communication between the source node to the destination node is based at least in part on the weighted parameter.

18. (Previously Presented) The method of claim 1, further comprising using a mapping value to determine a degree to which a measured parameter value meets a predefined parameter value.

19. (Previously Presented) The method of claim 1, wherein said network is an ad hoc wireless network.

20. (Previously Presented) The method of claim 1, wherein the first intermediate node is a mobile station.

21. (Previously Presented) An ad hoc wireless network, comprising:

a plurality of nodes that form a plurality of paths between a source node and a destination node, wherein the source node is configured to transmit a first message to the destination node along a first path of the plurality paths;

a first intermediate node along the first path, wherein the first intermediate node is configured to generate a first time stamp corresponding to receipt of the first message at the first intermediate node and a second time stamp corresponding to transmission of the first message from the first intermediate node to a second intermediate node along the first path;

the second intermediate node configured to generate a third time stamp corresponding to receipt of the first message at the second intermediate node; and

selecting means configured to select the first path from said plurality of paths for communication between said source node and said destination node based at least in part on a propagation delay between the first intermediate node and the second intermediate node, wherein the propagation delay comprises a difference between the second time stamp and the third time stamp.

22. (Canceled)

23. (Previously Presented) The ad hoc network of claim 21, wherein the propagation delay is stored in the first message.

24. (Previously Presented) The ad hoc network of claim 21, further comprising:

means for measuring a signal quality of the first message;

wherein said selecting means is further configured to select the first path for communication between the source node and the destination node based at least in part on said measured signal quality.

25. (Previously Presented) The ad hoc network of claim 21, further comprising:

processing means for calculating a distance between the first intermediate node and the second intermediate node;

wherein said selecting means is further configured to select the first path for communication between the source node and the destination node based at least in part on the calculated distance.

26. (Previously Presented) The ad hoc network of claim 21, further comprising:

processing means for calculating a velocity of the first intermediate node;

wherein said selecting means is further configured to select the first path for communication between the source node and the destination node based at least in part on the calculated velocity.

27. (Previously Presented) The ad hoc network of claim 21, further comprising:

means for measuring a power attributes of the first intermediate node;

wherein said selecting means is configured to select the first path for communication between the source node and the destination node based at least in part on said measured power attribute.

28. (Previously Presented) The ad hoc network of claim 21, further comprising:

means for determining a link stability of the first path;

wherein said selecting means is further configured to select the first path for communication between the source node and the destination node based at least in part on said link stability.

29. (Previously Presented) The ad hoc network of claim 21, further comprising:

means for identifying a quality of service of the first message;

wherein said selecting means is further configured to select the first path for communication between the source node and the destination node based at least in part on the quality of service.

30. (Previously Presented) The ad hoc network of claim 21, wherein:

said selecting means is configured to select a plurality of candidate routes;

said network further comprises mapping means for mapping said plurality of candidate routes to a plurality of quality of service classes; and

wherein said selecting means is further configured to select the first path from said plurality of candidate routes based at least in part on a quality of service of the first message.

31. (Previously Presented) A node in an ad hoc wireless network, said node comprising:

means for receiving a message transmitted from a source node along a plurality of communication paths including a first communication path, wherein the first communication path includes a first intermediate node and a second intermediate node;

means for identifying a first time that said message is received at the first intermediate node;

means for identifying a second time that said message is transmitted from the first intermediate node to the second intermediate node;

means for identifying a third time that the message is received at the second intermediate node, wherein the first time, the second time, and the third time are stored in a metrics field of the message;

means for determining a propagation delay between the first intermediate node and the second intermediate node, wherein the propagation delay comprises a difference between the second time and the third time; and

means for selecting the first communication path for communication with the source node based at least in part on the propagation delay.

32. (Previously Presented) The node of claim 31, wherein the first time corresponds to a first time stamp, the second time corresponds to a second time stamp, and the third time stamp corresponds to a third time stamp.

33. (Canceled)

34. (Canceled)

35. (Previously Presented) The node of claim 31, further comprising means for calculating a distance between the first intermediate node and the second intermediate node based at least in part on the propagation delay.

36. (Previously Presented) The node of claim 31, further comprising means for sending a second message to the source node in response to the message, wherein the second message is sent along the first path.